ECE 321 - Quiz #4 - Name _____

Transistor Amplifiers. Due midnight, May 8th, 2020

Calculators, internet, Matlab, circuit lab, tarot cards permitted. Just not someone else.

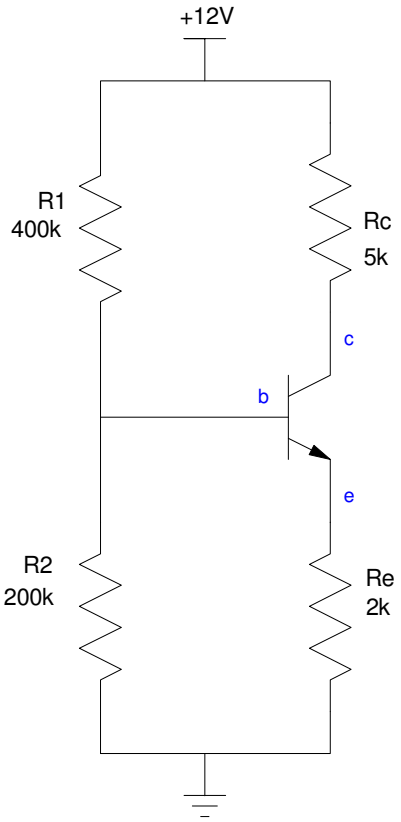
Please sign pledge if able (i.e. you did not work with anyone else)

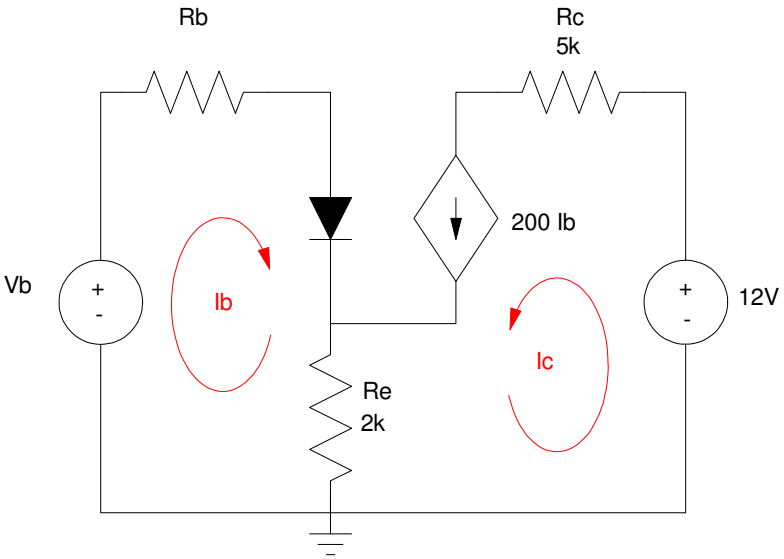
No aid given, received, or observer: _____

1) Determine Vb, Rb, and the Q-point for the following transistor circuit. Assume

- Vbe = 0.7V
- $\beta = 200$

Vb	Rb	Vce	Ic

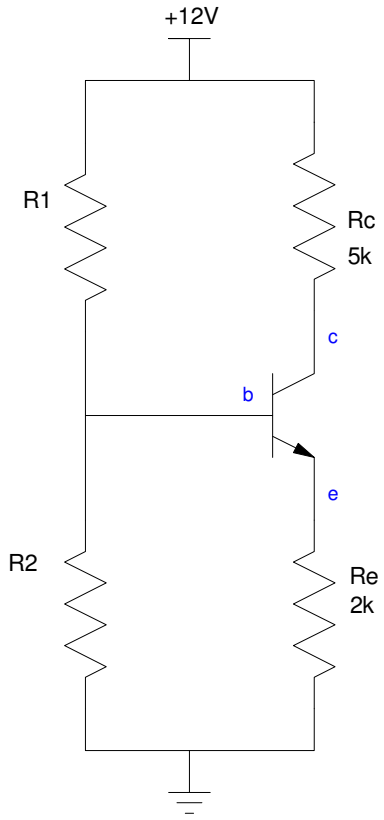


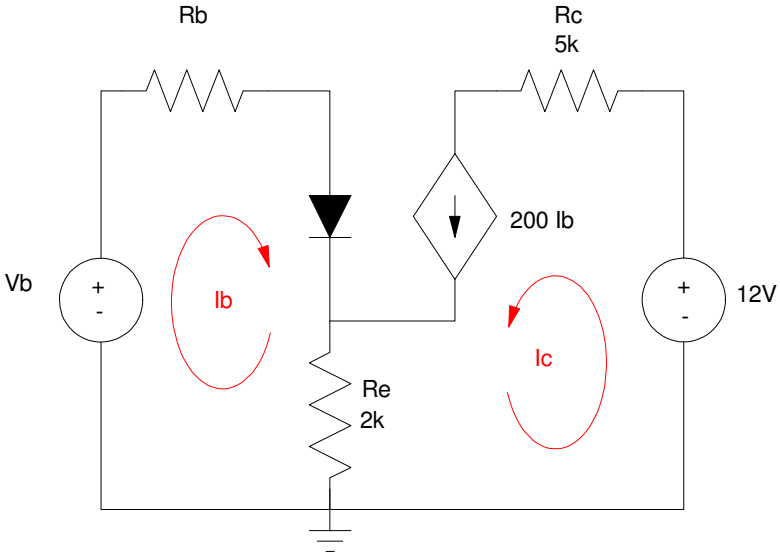


2) Determine R1 and R2 so that the following circuit

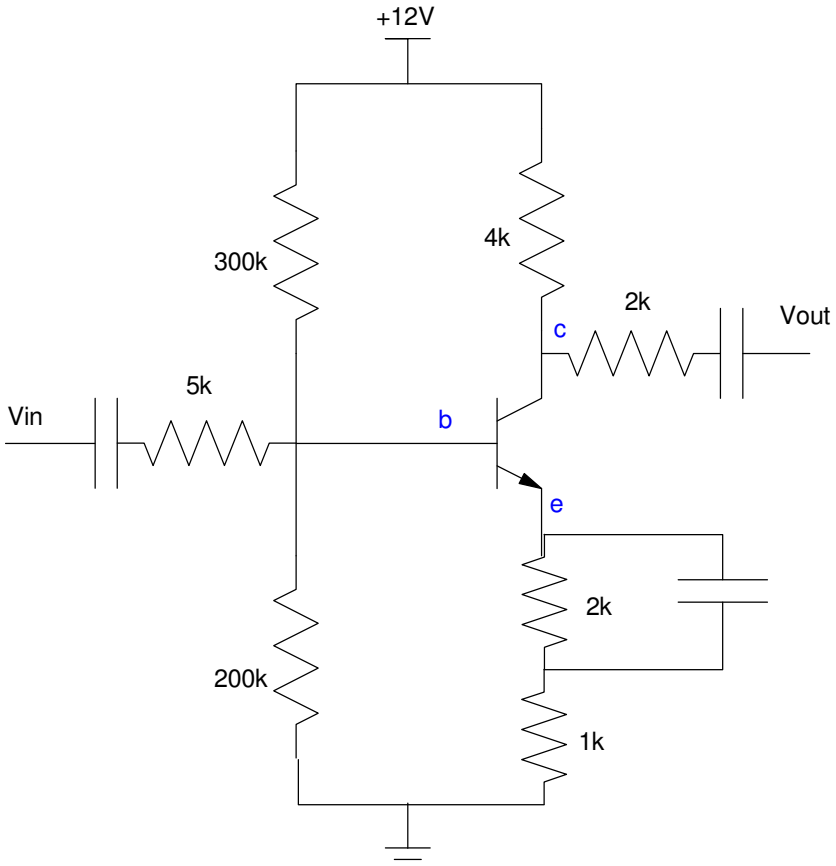
- Has a Q-point which is stabilized for variations in β, and
- Vce = 6.0V

R1	R2	Vb	Rb



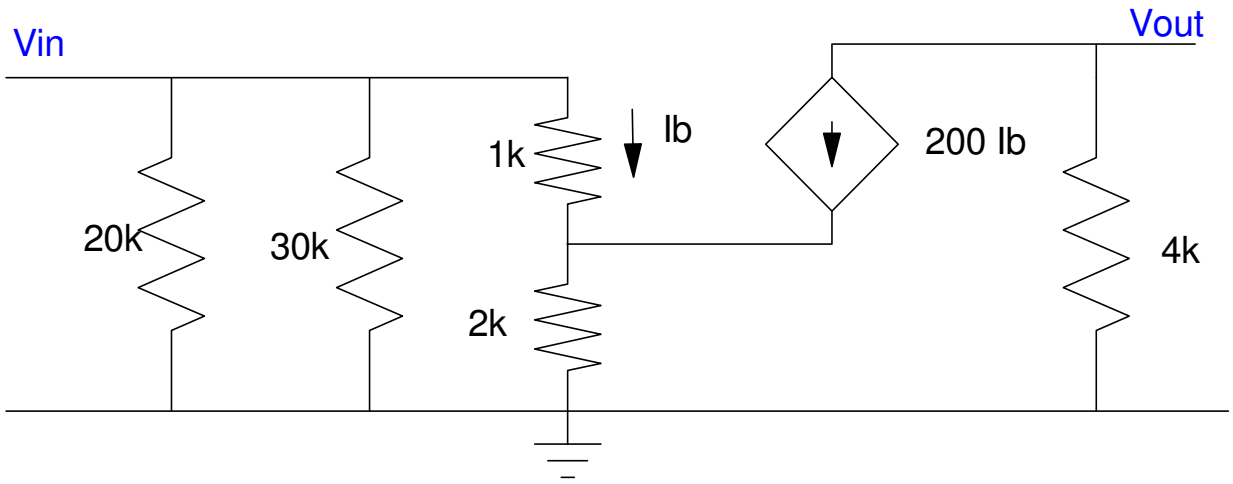


3) Draw the small signal model for the following circuit. Assume rf = 3000 Ohms



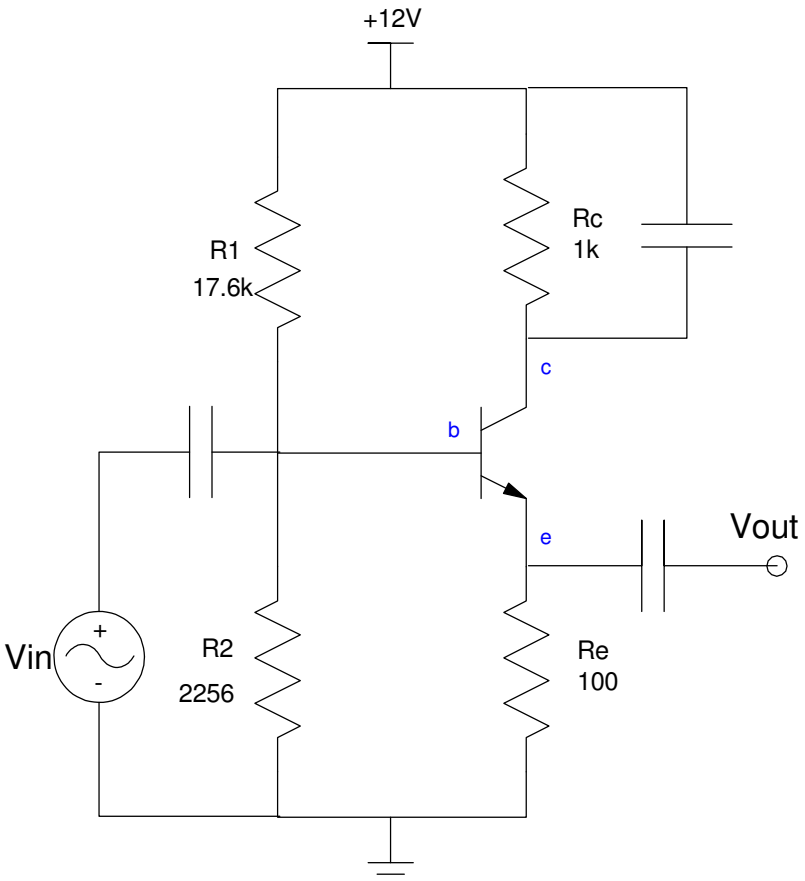
4) Find the 2-port model for the following circuit

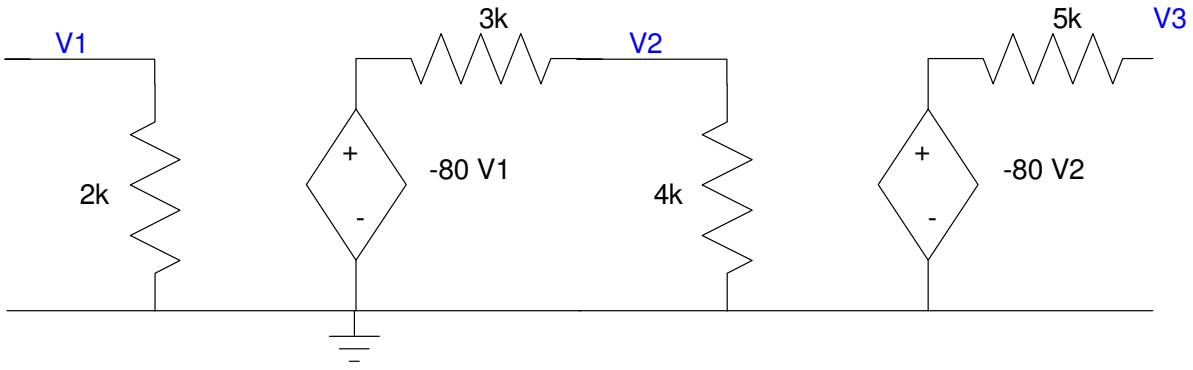
Rin	Ai	Rout	Ao



5) Determine the 2-port parameters for the following circuit using CircuitLab

Rin	Ai	Rout	Ao



6) Determine the 2-port parameters for the following cascaded CE amplifiers

Rin	Ai	Rout	Ao